



U.S. House of Representatives
Committee on Transportation and Infrastructure

Washington, DC 20515

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June 9, 2008

SUMMARY OF SUBJECT MATTER

TO: Members of the Committee on Transportation and Infrastructure

FROM: Committee on Transportation and Infrastructure Staff

SUBJECT: Hearing on "Financing Infrastructure Investments"

PURPOSE OF HEARING

At 10:00 a.m., on Tuesday, June 10, 2008, in Room 2167 Rayburn House Office Building, the Committee on Transportation and Infrastructure will hold a hearing to examine methods for financing investment in our nation's infrastructure, including roads, bridges, public transportation, aviation, ports, waterways, and wastewater treatment infrastructure. This will be the second day of hearings on this topic, following up on the May 8 joint hearing with the Committee on the Budget.¹

BACKGROUND

Adequate investment in our transportation and other public infrastructure is critical to our nation's economic growth, our competitiveness in the world marketplace, and the quality of life in our communities. Despite the importance of these investments, many of our nation's infrastructure needs are going unmet. The impact of inadequate infrastructure investment is being felt in a variety of ways, most notably through a significant increase in congestion.

Road congestion has become a major national problem. According to the Texas Transportation Institute's 2007 Urban Mobility Study, traffic congestion in the Nation's 437 urban areas continues to increase. Congestion now occurs during longer portions of the day and delays more travelers and goods than ever before.

¹ This memorandum is essentially the same as the one issued for the May 8 joint hearing, but has been updated to include descriptions of two new bills (H.R. 6004 and H.R. 5102) in Section II, and a new list of witnesses.

As congestion increases, so does the cost it imposes both on our economy and on motorists. In 2005, traffic congestion cost urban motorists \$78.2 billion in terms of wasted time and fuel, compared to \$73.1 billion in 2004, and just \$14.9 billion in 1982.² This equates to an average annual cost per traveler of about \$710 in 2005, up from \$680 in 2004, and \$260 in 1982. The hours of delay and gallons of fuel consumed due to congestion are only the elements that are easiest to estimate. The effect of uncertain or longer delivery times, missed meetings, business relocations and other congestion impacts are not included in this estimate.

Congestion has increased in the air, as well. In 2007, air travelers experienced the highest number of delayed flights -- 1.8 million -- in the 13 years since the Department of Transportation ("DOT") has collected such data. The Federal Aviation Administration ("FAA") predicts that, absent needed improvements to the aviation system, delays will increase by 62 percent by FY 2014.

According to the Commission on the Future of the U.S. Aerospace Industry, estimates of the cost of aviation delays to the U.S. economy range from \$9 billion in 2000 to more than \$30 billion annually by 2015. Without improvement, the combined economic cost of delays from 2000-2012 will total an estimated \$170 billion.

Delays are also increasing on our inland waterways, which contain a series of outdated and antiquated locks and dams that, unless rehabilitated or improved, will continue to hinder the movement of coal, grain, and other bulk products. Fifty-three percent of the lock chambers on the system have exceeded their 50-year design lives. With the use of the aging inland waterway system expected to increase, including through expanded use of short-sea shipping, delays are likely to continue to rise.

Inadequate infrastructure investment is also putting our environment at risk. Communities throughout the United States continue to struggle financially to meet their ever-increasing wastewater treatment infrastructure needs. The Environmental Protection Agency ("EPA") has reported that a failure to increase investment in wastewater treatment infrastructure would erode many of the water quality achievements of the past 30 years.

Estimates of the nation's clean water infrastructure needs over the next 20 years exceed \$400 billion. The needs are especially urgent for areas trying to remedy the problem of combined sewer overflows and sanitary sewer overflows and for small communities lacking sufficient independent financing ability. Drinking water infrastructure needs are estimated at nearly \$500 billion over the next 20 years. Current spending by all levels of government is one-half of the estimated needs.

According to the Congressional Budget Office ("CBO"), in 2006, the Federal Government invested \$76.3 billion on transportation and water infrastructure, including highways and roads, mass transit, rail, aviation, water transportation, water resources such as the construction and maintenance of dams and levees, and water supply and wastewater treatment.³ Of this \$76.3 billion in Federal spending, grants and loan subsidies totaled \$50.6 billion, and all other federal spending on infrastructure totaled \$25.7 billion. In recent years, the Federal grants and loan subsidies have

²In constant 2005 dollars.

³See "Trends in Public Spending on Transportation and Water Infrastructure, 1956 to 2004", issued by CBO in August 2007.

accounted for slightly more than one-third of state and local governments' total capital expenditures on infrastructure.

Over and above this \$76.3 billion in Federal investment is approximately \$7.9 billion in Federal revenues that were forgone in 2006 due to the tax preferences that the Federal Government provides to municipal bonds issued by States and localities to finance their infrastructure spending.

I. Existing Programs for Federal Financial Support for Non-Federally Owned Infrastructure

Most of the infrastructure discussed above is owned and operated by state and/or local governments, or private entities, and is only partially financed by the Federal Government. While the Federal Government does own and operate many capital assets (e.g., the air traffic control system, airport baggage screening systems, and public buildings), the issues related to Federally-owned capital assets are somewhat different from non-Federally owned capital assets and, therefore, are discussed separately in section III.

There are a range of options for financing infrastructure investments, including different methods of delivering the subsidy (e.g., grants vs. loans vs. tax exemptions), and different methods of financing the cost of that subsidy (e.g., borrowing through Treasury vs. borrowing through a third party). Some of the current methods by which infrastructure investments are financed are discussed below.

A. Grants

Traditionally, the Federal Government has subsidized infrastructure investments through grants. The major grant programs within the jurisdiction of the Committee on Transportation and Infrastructure include:

- Federal-Aid Highway Program ("FAHP") -- provides grants to States for construction, reconstruction, and improvement of highways and bridges on eligible Federal-Aid highway routes and for other special purpose programs and projects. The FY 2008 funding level for the FAHP is \$41.2 billion (including the additional \$1 billion for bridge repair).
- Transit Formula and Bus Grant Program -- provides grants to urbanized and non-urbanized areas nationwide to meet transit capital and, in some cases, operating expenses. For urbanized areas, formula funds are distributed to transit systems based on factors such as population, vehicle miles traveled, and transit ridership. Formula funds may be used for transit capital expenses, such as the purchase of new buses or train cars, or the rehabilitation and refurbishment of existing transit systems. For urbanized areas with populations of less than 200,000, and for non-urbanized areas, formula funds may also be used for transit operating expenses. Bus and Bus Facility Grants are allocated on a discretionary basis to fund the acquisition, construction, and improvement of buses and bus-related facilities. The FY 2008 funding level for Formula and Bus Grants is \$7.8 billion.
- Transit Capital Investment Grant Program-- provides grants for large capital projects that cannot be funded from a transit agency's formula allotment, such as Major Fixed Guideway projects ("New Starts"). Funds are allocated on a discretionary basis. The FY 2008 funding level for Capital Investment Grants is \$1.6 billion.

- Airport Improvement Program ("AIP") -- provides grants to public agencies and, in some cases, to private owners and entities for the planning and development of public-use airports that are included in the FAA's National Plan of Integrated Airport Systems ("NPIAS"). The NPIAS currently identifies 3,431 airports that are significant to national air transportation and, therefore, eligible to receive grants under the AIP. The FY 2008 funding level for AIP is \$3.5 billion.⁴

B. Forms of Assistance other than Grants

(1) Federally-Supported State Loan Funds

(a) State Infrastructure Banks

A State Infrastructure Bank ("SIB") is a revolving fund mechanism for financing a wide variety of highway and transit projects through loans and credit enhancement. SIBs are intended to complement the traditional Federal-aid highway and transit programs by supporting certain projects with dedicated repayment streams that can be financed in whole or in part with loans, or that can benefit from the provision of credit enhancements. As loans are repaid, or the financial exposure implied by a credit enhancement expires, the SIB initial capital is replenished and can be used to support a new cycle of projects.

Section 350 of the National Highway System Designation Act of 1995 ("NHS Act") (P.L. 104-59) authorized DOT to establish the SIB Pilot Program. Specifically, DOT was authorized to select up to 10 States to participate in the initial pilot program and to enter into cooperative agreements with the Federal Highway Administration and/or the Federal Transit Administration for the capitalization of SIBs with a portion of their Federal-aid highway funds. The FY 1997 DOT Appropriations Act opened SIB participation to all States and appropriated \$150 million in Federal General Funds for SIB capitalization. In total, 38 States and the Commonwealth of Puerto Rico were selected to participate in the SIB pilot program. Of the 39 participants approved for the SIB program, 32 States and Puerto Rico have active SIBs. By the end of June 2007, these 33 SIBs had collectively issued \$6.2 billion in loan agreements.

A small number of States have leveraged their SIB funds by using anticipated SIB loan repayments as collateral to secure bonds.⁵ For example, in July 2006, the State of Ohio established the "State Transportation Infrastructure Bond Fund" ("STIBF"), an investment-grade bond financing program that issues bonds on behalf of eligible Ohio political subdivisions. Under this program, bonds are issued by the Ohio Treasurer to fund eligible projects, including highway, transit, airports, waterway, roads, bridges, railroad, and any other transportation infrastructure projects. The program is expected to help political subdivisions achieve a lower cost of capital. The first project financed under the STIBF program is a 10-year, \$7 million transaction that received an "AA-" rating from Fitch Ratings and had an average borrowing cost fixed under four percent.

(b) Clean Water State Revolving Fund Program

⁴Assumes enactment of legislation to extend the authorization for the AIP program from June 30, 2008, to September 30, 2008.

⁵This practice of leveraging revolving fund assets is more common among Clean Water State Revolving Funds. See discussion on page 5.

Similar to the State Infrastructure Banks discussed above, the Clean Water State Revolving Fund ("CWSRF") program is another example of a state revolving loan fund that is capitalized by Federal grants. Under this program, which was established by the Clean Water Act amendments of 1987, the EPA provides grants to all 50 States and Puerto Rico to capitalize state loan funds. The States provide a 20 percent match. The CWSRF funds are then used by the State to make loans to fund the construction of municipal wastewater facilities, nonpoint source pollution control, and estuary protection projects. As the loans are paid back into the revolving fund, new loans are made to other recipients. Through FY 2007, the Clean Water SRFs have provided \$62.9 billion in loans for wastewater and other projects, including \$5.3 billion in loans in 2007 alone.

More than one-half of the CWSRF programs have leveraged their fund assets to increase loan funding available to address critical projects. Under a leveraging approach, federal capitalization grants and program cash flows are used as collateral to secure bonds that are issued by the CWSRF programs. The proceeds from the bonds are then lent out for SRF-eligible activities. According to EPA, leveraging has provided an additional \$20.6 billion.

According to EPA, interest rates for CWSRF loans in 2007 averaged 2.1 percent nationally, compared to the average market rate of 4.3 percent. For a CWSRF program offering this rate, a CWSRF-funded project would cost 18 percent less than projects funded at the market rate. CWSRFs can fund 100 percent of the project cost and provide flexible repayment terms up to 20 years.

(2) Direct Federal Loans and Loan Guarantees

(a) Transportation Infrastructure Finance and Innovation Act ("TIFIA")

Enacted as part of the Transportation Equity Act for the 21st Century ("TEA-21"), the Transportation Infrastructure Finance and Innovation Act of 1998 ("TIFIA") established a Federal credit program for eligible transportation projects of national or regional significance. The program's goal is to leverage Federal funds by attracting substantial private and other non-Federal co-investment in critical improvements to the nation's surface transportation system.

Through TIFIA, DOT provides Federal credit assistance to highway, transit, rail, and intermodal freight projects, including seaports. The amount of TIFIA assistance may not exceed 33 percent of total project costs. The program targets only large projects, generally those costing more than \$50 million.

The TIFIA program offers three types of financial assistance: secured loans, loan guarantees, and standby lines of credit. Secured loans are direct Federal loans to project sponsors. Loan guarantees provide full-faith-and-credit guarantees by the Federal Government to institutional investors that make loans for projects. Standby lines of credit represent secondary sources of funding in the form of contingent Federal loans that, if needed, supplement project revenues during the first ten years of project operations.

Both public and private project sponsors may apply for TIFIA assistance, but all prospective borrowers must demonstrate that the proposed project is consistent with State and local transportation plans.

To fund TIFIA, the Safe Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users ("SAFETEA-LU") (P.L. 109-59) provides \$122 million in contract authority from the Highway Trust Fund for each of fiscal years 2005 through 2009 to pay the subsidy cost (and administrative expenses) of credit assistance.⁶

As of April 2008, the TIFIA program had approved \$4.8 billion in credit assistance to 15 projects representing a total of \$18.6 billion of infrastructure investment. This \$4.8 billion in credit assistance was provided at a Federal budget cost of approximately \$346 million in contract authority.

(b) Railroad Rehabilitation and Improvement Financing ("RRIF")

The Railroad Rehabilitation and Improvement Financing ("RRIF") Program provides direct federal loans and loan guarantees to finance development of railroad infrastructure. The RRIF program was established by TEA-21 and amended by SAFETEA-LU. Under this program the Federal Railroad Administrator is authorized to provide direct loans and loan guarantees up to \$35 billion. Up to \$7 billion is reserved for projects benefiting freight railroads other than Class I carriers (i.e., projects that benefit "short line" railroads).

RRIF funding may be used to:

- Acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings and shops;
- Refinance outstanding debt incurred for the purposes listed above; and
- Develop or establish new intermodal or railroad facilities.

Direct loans can fund up to 100 percent of a railroad project with repayment periods of up to 25 years and interest rates equal to the cost of borrowing to the government.

Eligible borrowers include railroads, state and local governments, government-sponsored authorities and corporations, joint ventures that include at least one railroad, and certain "captive" shippers who intend to construct a new rail connection.

⁶Since enactment of the Federal Credit Reform Act of 1990, Federal agencies are required to set aside capital reserves in advance to cover the expected long-term cost to the Government of providing credit assistance. Analogous to a private bank's loan reserve, the subsidy cost represents the Federal Government's estimate of expected loss associated with the provision of each TIFIA project's credit instrument.

Since its enactment, the RRIF program has executed 21 loan agreements worth a total of \$748 million, as shown in the table below.

RRIF Loan Agreements

ORGANIZATION	YEAR	AMOUNT
Nashville and Eastern Railroad	2008	\$4.6 million
Columbia Basin Railroad	2008	\$3.0 million
Great Western Railway	2007	\$4.0 million
Virginia Railway Express	2007	\$72.5 million
R.J. Corman Railway	2007	\$59 million
Dakota, Minnesota & Eastern Railroad	2007	\$48 million
Iowa Northern Railroad	2006	\$25.5 million
Wheeling & Lake Erie Railway	2006	\$14 million
Iowa Interstate Railroad	2006	\$9.35 million
Great Smoky Mountains Railroad	2005	\$7.5 million
Riverport Railroad	2005	\$5.5 million
The Montreal, Maine & Atlantic Railway	2005	\$34 million
Tex-Mex Railroad	2005	\$50 million
Iowa Interstate Railroad	2005	\$32.7 million
Stillwater Central Railroad	2004	\$4.6 million
Wheeling & Lake Erie Railway	2004	\$25 million
Arkansas & Missouri Railroad	2003	\$11 million
Nashville and Western Railroad	2003	\$2.3 million
Dakota, Minnesota & Eastern Railroad	2003	\$233 million
Amtrak	2002	\$100 million
Mount Hood Railroad	2002	\$2.07 million

(3) Federal Support of State and Local Bonds

(a) Tax-Exempt Bonds

The interest earned on most bonds issued by state and local governments is exempt from Federal taxation. Providing tax-exempt status for these bonds is another way in which the Federal Government helps to finance certain infrastructure investments. Tax-exempt status can lower the cost of capital significantly. Because of the exemption, purchasers of such bonds are willing to accept a lower interest rate than they would require on taxable bonds of comparable risk and maturity. Consequently, the Federal Government effectively pays a share (about 25-30 percent) of the taxable interest that state and local governments would have to pay if their debt were taxable.

From 2002-2006, \$224 billion in tax-exempt municipal bonds were issued to fund transportation projects, including airport, mass transit, road and bridge projects, and \$160 billion in such bonds were issued to fund water and sewer projects.⁷

⁷GAO-08-364, Appendix III: Summary of Thomson Financial 2007 Bond Buyer Yearbook Data, Use of Proceeds, 2002-2006 Combined.

Federal law limits tax-exempt financing of facilities used in conjunction with private activities. For federal tax purposes, municipal bonds are classified as private activity bonds if they pass both the private use and the private payment test. These tests specify that if more than 10 percent of the bond proceeds are used for private business purposes and more than 10 percent of the bond proceeds are secured by payments from property used for private business use, then the bond is a private activity bond.

A private activity bond can be either taxable or tax-exempt. Congress has specified certain private activities that can be financed with tax-exempt bonds. These activities include airport, water and sewer projects, and as of 2005, highway and surface freight transfer facilities (*see* SAFETEA-LU discussion below). Private activity bonds that receive tax-exempt status are called qualified private activity bonds. In general, qualified private activity bonds are subject to a number of restrictions, including annual state-by-state limitations on the volume of such bonds that can be issued.

Section 11143 of Title XI of SAFETEA-LU amended Section 142 of the Internal Revenue Code to add highway and freight transfer facilities to the types of privately developed and operated projects for which qualified (i.e., tax-exempt) private activity bonds may be issued. This change allowed private activity on these types of projects, while maintaining the tax-exempt status of the bonds.

Qualified Highway or Surface Freight Transfer Facilities include:

- Any surface transportation project which receives Federal assistance under Title 23, United States Code;
- Any project for an international bridge or tunnel for which an international entity authorized under Federal or State law is responsible and which receives Federal assistance under Title 23, United States Code; and
- Any facility for the transfer of freight from truck to rail or rail to truck (including any temporary storage facilities directly related to such transfers) which receives Federal assistance under Title 23 or Title 49.

It is important to note that any surface transportation project which receives Title 23 assistance is qualified to benefit from these private activity bonds. According to DOT, because TIFIA credit assistance is a form of Title 23 assistance, this means that TIFIA projects are also eligible to receive this tax-exempt bonding authority. This means that TIFIA-assisted public transportation projects, intercity bus or rail facilities and vehicles (including vehicles and facilities owned by Amtrak), public freight rail facilities or private facilities providing public benefit for highway users, and intermodal freight transfer facilities are all eligible to be financed with qualified private activity bonds.

SAFETEA-LU limits the total amount of such private activity bonds to \$15 billion and directs the Secretary of Transportation to allocate this amount among qualified highway or surface freight transfer facilities. The \$15 billion in exempt facility bonds is not subject to the state volume caps. As of April 3, 2008, DOT had approved a total of \$5.288 billion in private activity bond allocations for a total of six projects, including the Port of Miami Tunnel (\$900 million), the Missouri DOT Safe & Sound Bridge Improvement Project (\$700 million), the Knik Arm Crossing in

Alaska (\$600 million), the Virginia I-495 Capital Beltway HOT Lanes (\$800 million), the Texas DOT IH 635 (LBJ Freeway) (\$288 million), and Pennsylvania Turnpike Capital Improvements (\$2 billion).

(b) Tax-Credit Bonds

Tax-credit bonds are a special type of bond that has in recent years been proposed as a way to increase investment in programs such as Amtrak and mass transit. Tax-credit bonds, which must be specifically authorized by Congress, allow investors to receive a nonrefundable tax credit against their federal income tax liability instead of a cash interest payment. One example of tax-credit bonds is the "Qualified Zone Academy Bonds", which were authorized by the Taxpayer Relief Act of 1997 to provide aid to state and local governments to improve certain schools.

During the last reauthorization of highway and transit programs, the use of tax-credit bonds was considered as a potential new funding source for transportation programs. At that time, CBO was asked by the Senate Committee on the Budget to analyze three hypothetical proposals involving the use of tax-credit bonds for transportation programs.⁸ The first such proposal assumed Congress would authorize the creation of a new government-sponsored enterprise, the Transportation Financing Corporation, which would be authorized to issue tax-credit bonds. The second proposal assumed that tax-credit bonds would be issued by the U.S. Treasury. The third proposal assumed that conventional bonds whose proceeds were earmarked for transportation would be issued by the U.S. Treasury. CBO's analysis concluded that financing transportation programs through the proposed bonds would generally be more expensive to the Federal Government over the lifetime of the bonds than financing an equivalent amount through appropriations.

In July 2004, CBO further examined the issue of tax-credit bonds.⁹ CBO reaffirmed that tax-credit bonds will always be a more expensive way of financing programs' spending than the conventional method of U.S. Treasury financing. Conventional Treasury securities achieve the lowest possible financing cost because they are free of default risk and highly liquid. According to CBO, any other means of raising funds can be expected to cost more. However, CBO did note one possible advantage of tax-credit bonds. Specifically, CBO noted that tax-credit bonds could be designed to deliver the same Federal subsidy to state and local governments that current tax-exempt bonds provide, but at a lower cost. This is because a tax-credit bond would subsidize the interest on state and local government debt more efficiently than an exemption of interest income could.¹⁰

(c) Grant Anticipation Revenue Vehicle ("GARVEE") Bonds

Bonds repaid with future Federal funds are commonly referred to as GARVEEs, or Grant Anticipation Revenue Vehicles. GARVEEs permit states to pay debt service and other bond-related expenses with future Federal-aid highway apportionments.

⁸See "A Comparison of Tax-Credit Bonds, Other Special-Purpose Bonds, and Appropriations in Financing Federal Transportation Programs", issued by CBO in June 2003.

⁹See "Tax-Credit Bonds and the Federal Cost of Financing Public Expenditures", issued by CBO in July 2004.

¹⁰Because some bond purchasers' marginal tax rates are higher than other buyers', tax-exempt bonds usually end up costing the federal government more than the amount of benefits (i.e., the reduction in interest costs) received by the state and local governments that issue the bonds, making tax-exempt bonds a relatively inefficient method of delivering subsidies. For more information, see July 2004 CBO paper.

While some debt service payments have been eligible for reimbursement from Federal-aid highway funds since the beginning of the modern Federal-Aid Highway Program in 1956, this opportunity was of limited practical use. For example, prior to 1995, States could use their apportioned Federal-aid highway funds to repay only the principal component of debt service on certain categories of projects, and interest costs were eligible for reimbursement only for some Interstate projects.

The NHS Act, which amended Section 122 of Title 23 to expand the Federal Highway Administration's ("FHWA") bond reimbursement provisions, made two significant changes. First, the NHS Act expanded the types of debt-related costs eligible for Federal-aid reimbursement to include interest expense for all projects, debt issuance costs, and the cost of purchasing commercial bond insurance. Second, the NHS Act eliminated provisions that restricted the amount and timing of advance construction authorizations. The limitation was replaced with a requirement that advance construction projects be on the approved STIP, enabling FHWA to approve an advance construction project at any time, even in a future authorization period.

This ability to approve advance construction in a future authorization period is critical to the GARVEE process. Under the former rules, it would have been necessary to obligate the Federal share of debt service payments within the bounds of obligation authority available during the current authorization period. Under the new rules, it is possible to obligate Federal funds for debt service expenses over a longer period.

Candidates for GARVEE financing are typically larger projects (or programs of projects) that have the following characteristics:

- They are large enough to merit borrowing rather than pay-as-you-go grant funding, with the costs of delay outweighing the costs of financing;
- They do not have access to a revenue stream (such as local taxes or tolls) and other forms of repayment (such as state appropriations) are not feasible; and
- The sponsors (generally state DOTs) are willing to reserve a portion of future year Federal-aid highway funds to satisfy debt service requirements.

In addition, candidate projects must be eligible for Federal-aid highway funding under one or more program funding categories for which advance construction is available. The projects must also appear on the STIP.

As of April 2008, 20 States and two territories had issued more than \$8 billion in GARVEE bonds (excluding refunding issues) since enactment of the NHS Act in 1995.

II. Proposed New Programs for Federal Support of Non-Federal Infrastructure

Recently, several bills have been introduced to establish a variety of "infrastructure banks" to increase investment in infrastructure. In general, these proposals use debt-financing to target investment to infrastructure. While this accelerates investment relative to what would likely occur under a pay-as-you-go approach, the debt obligations eventually must be repaid, with interest, often through user charges or other dedicated revenue sources.

In addition, there may well be no budget scoring advantage to these types of proposals. According to CBO, the way in which an activity should appear in the federal budget depends on the nature of the activity, not its method of financing.¹¹ Long-standing federal budget principles require that an investment that is essentially governmental in nature (i.e., initiated, controlled, and funded largely by the government for governmental purposes) be shown in the budget. This means that activities do not have to be conducted by a federal agency, or financed by the U.S. Treasury, to be classified as governmental and included in the budget.

Therefore, a key question in determining how these types of proposals would be scored is whether or not the activity is governmental in nature, in CBO's view. If the entity issuing the bonds is deemed by CBO to be sufficiently "federal-like", then the legislation creating the entity would likely be scored in a way that provides no advantage over the more traditional approach of providing regular appropriations.

A. National Infrastructure Development Act of 2007 (H.R. 3896)

H.R. 3896, introduced by Representative DeLauro on October 18, 2007, establishes the National Infrastructure Development Corporation ("NIDC") and its subsidiary, the National Infrastructure Insurance Corporation, as wholly owned Government corporations. Within five years after enactment, these corporations are intended to transition to self-sustaining, privately-controlled government-sponsored enterprises, comparable in structure to Fannie Mae and Ginnie Mae.

The NIDC would be a national level revolving fund intended to facilitate the financing of infrastructure projects that can be self-sustaining based on user charges or other dedicated revenue sources. A broad range of infrastructure projects would be eligible for financial assistance through the NIDC, including road, highway, bridge, tunnel, airport, mass transportation, passenger or freight rail, waterway, commercial port, drinking or wastewater treatment facility, and solid waste disposal facility projects, whether owned, leased or operated by a public entity or a private entity, or a combination thereof.

The NIDC would initially be capitalized by the Federal Government. Specifically, the bill requires the Secretary of Treasury, subject to appropriation, to purchase \$3 billion worth of voting common stock of the Corporation in each of the three years following the date of enactment of this Act. Thereafter, the NIDC would be self-sustaining through revenues generated by income from loan repayments, fees, and charges.

The bill authorizes the NIDC to: (1) make loans and purchase debt securities and equity securities, the proceeds of which are to be used to finance the development of one of more infrastructure facilities; and (2) issue and sell debt securities and equity securities.

In addition, the Corporation would be authorized to designate certain bonds as "Public Benefit Bonds". Public Benefit Bonds are defined as any obligation issued after the date of enactment if: (1) 95 percent or more of the net proceeds of such obligation are used to finance one or more infrastructure facilities; (2) such obligation has received a published rating; and (3) the development of such infrastructure facilities is undertaken by a governmental entity or a public-

¹¹See "Third-Party Financing of Federal Projects", issued by CBO June 1, 2005.

private partnership. The bill includes provisions intended to encourage pension plan investment in the development of infrastructure facilities, through Public Benefit Bonds.

The NIDC would have a 12-member Board of Directors, of which nine directors would be appointed by the President and three would be officers of the NIDC. Of the non-officer directors appointed to the board, a minimum of six would be selected from the private sector as follows:

- Two representatives from organized labor;
- Two individuals involved in the field of public-private infrastructure finance and related disciplines; and
- Two individuals selected after consultation with the National Governors' Conference.

A majority of the non-officer members of the board shall appoint the president of the NIDC, who shall serve on the board of directors. The president of the NIDC shall select two executive officers to be appointed to the board.

H.R. 3896 would also establish the National Infrastructure Insurance Corporation ("Insurance Corporation") as a subsidiary of the NIDC. The Insurance Corporation would be initially capitalized by the NIDC, and would be authorized to insure and reinsure bonds, debentures, notes, debt instruments, loans, and any interest thereon, the proceeds of which are to be used to finance or refinance development of infrastructure facilities.

The obligations of either corporation, and obligations insured by any such corporation shall not be obligations of, or guaranteed as to principal or interest by, the United States or any federal agency.

B. National Infrastructure Bank Act of 2007 (S. 1926 and H.R. 3401)

S. 1926, introduced by Senators Dodd and Hagel on August 1, 2007, and H.R. 3401, introduced by Representatives Ellison and Frank on August 3, 2007, would establish a National Infrastructure Bank as an entity of the U.S. Government to finance publicly-sponsored infrastructure projects of regional and national significance. Eligible types of projects include public transit systems, housing properties, roads, bridges, drinking water systems, and wastewater systems.

Modeled after the Federal Deposit Insurance Corporation, the Bank would be led by a five-member Board of Directors, each of whom would be appointed by the President and confirmed by the Senate. No more than three of the directors may be of the same political affiliation.

Under S. 1926, infrastructure projects with a potential Federal investment of at least \$75 million would be brought to the Bank's attention by a public sponsor (e.g., state, locality, tribe, transit agency, or a consortium of these entities). Using criteria the Bank establishes through a rulemaking process, the Bank would select projects for funding, and develop a financing package that may consist of grants, direct loans, loan guarantees, or long-term project-specific bonds.

The Bank is authorized to issue up to \$60 billion in infrastructure bonds. These bonds could be either general purpose infrastructure bonds (the proceeds of which would be used to provide direct subsidies to any qualified infrastructure projects) or project-specific infrastructure bonds (the

proceeds of which would be used to fund only that project). Both types of bonds issued by the Bank would be backed by the full faith and credit of the United States.

C. Build America Bonds Act of 2007 (S. 2021)

S. 2021, introduced by Senators Wyden and Thune on September 6, 2007, would authorize two or more State infrastructure banks to form a multi-state organization to be known as the Transportation Finance Corporation ("TFC"). The TFC would be authorized to issue up to \$50 billion in "Build America" bonds to fund qualified transportation infrastructure projects, including roads, bridges, rail and transit systems, ports, and inland waterways. The TFC shall be exempt from all Federal, State, and local taxation.

The Build America bonds are not an obligation of the United States, and are not Federally-guaranteed. While the payment of principal with respect to such bonds is the obligation of the TFC, the Federal Government would essentially be paying the "interest" on the bonds. This is because the bonds would be tax credit bonds (i.e., bond holders would receive Federal tax credits in lieu of interest). The applicable credit rate would be equivalent to long-term corporate debt obligations, determined in such manner as the Secretary of Treasury prescribes.

The TFC shall establish a Build America Bonds Trust Account ("Trust Account"). The following amounts shall be deposited into the Trust Account: (1) the proceeds from the sale of all Build America bonds; (2) an appropriation of funds from the Federal Government equal to the lesser of \$50 billion or the amount of revenues resulting from the extension of Customs user fees beyond September 31, 2007; and (3) any investment earnings on the amounts deposited into the Trust Account. Amounts in the Trust Account may be used only to pay the costs of qualified projects, redeem Build America bonds, and fund the operations of the Corporation.

D. RIDE 21 (H.R. 6004)

H.R. 6004, the Rail Infrastructure Development and Expansion Act for the 21st Century ("RIDE 21"), introduced by Representative Oberstar on May 8, 2008, would authorize states or interstate compacts to issue bonds to finance high-speed passenger rail infrastructure improvements. Specifically, the bill authorizes the issuance of \$12 billion in federal tax-credit bonds and \$12 billion in federal tax-exempt private-activity bonds over the next ten years, if the Secretary of Transportation ("Secretary") determines that the bond proceeds will be used for projects that are part of a high-speed rail transportation corridor design approved by the Secretary.

Under H.R. 6004, the Secretary may approve an overall corridor design that includes the following elements: (1) a written agreement regarding the use of any rights-of-way owned by freight railroads; (2) the elimination of existing railway-highway grade crossings that would impede high-speed rail operations; (3) the application of prevailing wage rate standards to construction projects; and, in the case of multi-state corridors, (4) the existence of an interstate compact.

The Secretary shall give preference to projects that: (1) use a mix of tax-credit and tax-exempt bonds; (2) link rail passenger service with other modes of transportation; (3) have a significant impact on air traffic congestion; (5) have completed environmental analyses and are ready to commence; or (6) have received financial commitments and other support of State and local governments.

E. ON TIME Act of 2007 (H.R. 5102)

H.R. 5102, introduced by Representative Calvert on January 23, 2008, takes a different approach from the bills discussed above. Rather than rely on debt-financing, H.R. 5102 would create new freight-related user fees and a dedicated freight trust fund to assist trade gateway communities in addressing their freight-related infrastructure needs.

Specifically, H.R. 5102 would direct the Secretary of Transportation to assess and collect a national trade gateway corridor fee on each article imported into, and exported from, the United States. Such fee shall be equal to .075 percent of the value of the article, or \$500, whichever is less. Fee collections shall be deposited into the National Trade Gateway Corridor Fund ("the Fund"). Amounts in the Fund shall be apportioned to States to fund eligible projects in the transportation trade corridor for the Customs port of entry at which the fees were collected. Such apportionments shall be made proportionally, such that fees collected at a particular port of entry are used to fund projects in the transportation trade corridor for that particular port.

Under H.R. 5102, the Secretary of Transportation, in consultation with the Secretary of Commerce, would establish one transportation trade corridor for each Customs port of entry. Such corridors may not extend more than 300 miles from the Customs port of entry for which they are established, and may only include areas that are used for motor vehicle and cargo movements related to international trade.

To be eligible for funding from the National Trade Gateway Corridor Fund, a project must be located in a designated transportation trade corridor. In addition, it must be (1) eligible for assistance under chapter 1 of title 23, United States Code; or (2) for construction of or improvements to a publicly-owned intermodal freight transfer facility, for providing access to such a facility, or for making operational improvements to such a facility.

Project selection authority under H.R. 5102 rests with the State Departments of Transportation, which are required to seek input from local governments, port authorities, regional planning organizations, and public and private freight shippers. Finally, H.R. 5102 requires each State to establish a process for rating proposed projects that clearly identifies the basis for rating projects in accordance with the purposes of the legislation.

III. Issues Related to Federally-Owned Infrastructure

As noted above, the issues related to Federally-owned infrastructure, such as the air traffic control system, airport baggage screening systems, and public buildings, are somewhat different from those related to non-Federally owned infrastructure. Some of the methods by which Federally-owned capital assets are financed are discussed below.

A. Appropriations

Up-front payment of appropriated funds, financed through Treasury, is generally the least expensive way to finance capital assets. However, full, timely, up-front appropriations are often not a realistic alternative in the current budget environment. In the face of budget constraints, a variety of other methods have been used or proposed to finance capital assets, as discussed below.

B. Leasing

Leasing is one method by which the use of a capital asset can be acquired. For example, it is sometimes mentioned as an option for financing the FAA's Next Generation Air Traffic Control system.

In the 1980s, many agencies used leases as a substitute for appropriations to acquire major capital assets with specialized uses unique to the Federal Government. While leasing to meet long-term needs almost always results in greater long-term costs to taxpayers, it also provides the government opportunities to spend more on other mission objectives. However, the budget "scorekeepers" (i.e., the House and Senate Budget Committees, the Office of Management and Budget ("OMB"), and CBO) considered such leasing practices to be harmful in that they reduced oversight by both Congress and OMB, and committed the Federal Government to future expenditures that were not reflected in the budget at the time the commitments were made.

To put an end to such leasing practices, the Budget Committees, OMB, and CBO jointly developed the current guidelines for the budgetary treatment of leases. These guidelines have been in place since 1991.

Under these guidelines, a long-term lease that, in effect, provides the Federal Government with ownership of an asset is scored "up-front" (i.e., in the year in which the lease is signed) with budget authority equal to the present value of all future lease payments. Such leases include both capital leases (i.e., leases in which the government consumes almost all of the services produced by an asset over its useful life) and lease-purchases (i.e., leases in which the government purchases the asset at the end of the lease term). In contrast, the budget authority for operating leases (i.e., leases that provide the government with access to the services of a commercial asset only for a limited portion of its useful life) can be recorded annually over the life of the lease as lease payments are made.

This "up-front" scoring rule was intended to put capital leases and lease-purchases on an equal budgetary footing with direct purchases of assets, in an effort to ensure that agencies acquire capital assets in the most cost-effective manner. Unfortunately, these guidelines have had an unintended and undesirable effect in that agencies have sometimes chosen to rely on a series of operating leases to obtain access to assets for which they have a long-term need -- a strategy that is generally even less cost-effective than a lease-purchase.

One example of this can be found in the leasing of Federal office space. In almost all circumstances, the use of long-term leases to satisfy the need for Federal office space is a wasteful use of appropriated funds, because such leases are almost always more expensive than Federal construction. However, budget constraints, combined with the "up-front" scoring rule for capital leases and lease-purchases, have sometimes resulted in the General Services Administration ("GSA") using a series of operating leases, which contain no ownership option, to meet Federal space requirements.

The Government Accountability Office's ("GAO") work over the years has shown that building ownership often costs less than operating leases, especially for long-term space needs. For example, in 1995 GAO reported that 55 of 73 operating leases that the GSA had entered into cost a

total of \$700 million more than construction. In 1999, GAO reported that for eight of nine major operating lease acquisitions that GSA had proposed, construction would have cost less than leasing and saved the government \$126 million over 30 years. In 2005, GAO testified that for the Patent and Trademark Office's long-term requirements in northern Virginia, the cost of an operating lease was estimated to be \$48 million more than the construction and \$38 million more than lease purchase. Similarly, the Department of Transportation Building in Washington, D.C. was estimated to cost \$190 million less to construct than to enter into an operating lease. Most recently, in January 2008, GAO reported that four of seven operating leases that GSA had entered into cost a total \$83.3 million more than construction. Clearly, the current practice of relying on leasing to meet long-term space needs results in excessive costs to taxpayers and does not reflect an economically rational approach to capital asset management. It may, however, be a rational response to the current budget process which, for discretionary appropriations, has a one-year time horizon and does not recognize future cost savings or cost avoidance that would result from up-front investments in capital assets.

C. Other Contract Arrangements

Other contract arrangements have been used by Federal agencies to acquire assets without recording the costs up front, including the use of third-party financing to access private capital. According to CBO, one example of such third-party financing is the Energy Savings Performance Contract ("ESPC") program.¹²

The rationale for the ESPC program is that investing in more energy-efficient equipment should lower the government's energy use and hence its costs. Under the ESPC program, a contractor both finances and installs the energy-efficient equipment in Federal buildings. The financing is backed by fixed-price contracts that obligate the Federal Government to repay the vendor's costs, including a guaranteed rate of return, and to pay off any outstanding debt if it cancels a contract.

The law authorizing ESPCs is unusual in that it allows agencies to sign long-term contracts without getting an appropriation to cover the full cost of the Federal Government's contractual obligation -- only the amount needed to cover one year of the contract's cost is required when the agreement is approved. This budgetary treatment was also sanctioned in a memorandum from President Clinton to the heads of executive branch departments and agencies.¹³ This statutory and executive authority combined provides, in effect, a limited exception from the up-front scoring rule for the acquisition of energy-efficient equipment.

As CBO notes, it would be more efficient to acquire the energy-efficient equipment by paying up-front, using appropriated funds, rather than by third-party financing. However, using appropriated funds is not always a viable option for Federal agencies with tight budgets. Without the unusual authority provided under the ESPC program, agencies may well have delayed investing in energy-efficient equipment, despite the future savings that could be derived from reduced energy use. This is because, under the current budget process, there is no recognition of the link between an up-front capital investment and the future savings that would be derived from that investment.

¹² See "Third-Party Financing of Federal Projects", issued by CBO June 1, 2005.

¹³ Memorandum from President Clinton titled "Cutting Greenhouse Gases Through Energy Savings Performance Contracts", issued July 25, 1998.

IV. Capital Budgeting

In general, proponents of capital budgeting believe that the current Federal budget structure and process have led to a less than optimal level of investment in infrastructure and other programs that promote long-term economic growth and increased productivity.

Currently, the Federal budget treats all expenditures the same, regardless of whether it is spending for long-term investment or spending for current consumption. In addition, the current budget process does not encourage Congress to make decisions about how much spending overall should be devoted to programs having a direct bearing on long-term growth and productivity.

Some believe this has allowed spending for current consumption to "crowd out" spending for long-term investment. For example, Federal outlays for physical capital, research and development, and education declined as a share of gross national product ("GNP") between 1980 and 1984 and have remained relatively stable at the lower level since then.¹⁴ Specifically, in 1980, such spending was 2.6 percent of GNP. By 1984, such spending had been reduced to 1.8 percent of GNP. In 2007, the most recent year for which actual data are available, such spending was still 1.8 percent of GNP.

As discussed above in Section III, even capital investments that would result in future cost savings to the Federal Government can be "crowded out" under the current budget process. This is because the spikes in budget authority needed to make up-front capital investments can be difficult to accommodate, and the one-year time horizon of the federal budget process does not easily recognize future cost savings that result from up-front capital investments. Under the current process, the overriding concern is to minimize spending in the budget year, regardless of whether or not increased investments made in the budget year could more than pay for themselves by reducing costs in the outyears. This can lead to inefficient Federal spending.

Interest in a capital budget increased in the 1980s with the apparent approval of Comptroller General Charles Bowsher and the suggestion by President Reagan in 1986 that the idea be studied. In 1982 and 1983, the Subcommittee on Economic Development, then chaired by Chairman Oberstar, held several days of hearings on capital budgeting. In 1995 and 1996, the issue arose again during Congressional deliberations over the proposed Balanced Budget Amendment to the Constitution.

"Capital budgeting" appears to mean different things to different people. In broad terms, capital budgeting refers to methods by which spending on long-term investments (i.e., spending that generates benefits over multiple years) can be accounted for separately from spending on current consumption, and perhaps given a different budgetary treatment in recognition of the fact that the benefits are generated over multiple years. This can take a variety of forms, ranging from simply displaying additional information in the budget regarding investment spending; to depreciating capital investments over time and requiring the appropriation of annual depreciation charges rather than the entire cost of the investment up-front; to establishing and enforcing target levels of "investment" spending.

¹⁴FY 2009 President's Budget, Historical Tables, Table 9.1, "Total Investment Outlays for Major Public Physical Capital, Research and Development and Education and Training: 1962-2009".

Budget experts (e.g., the Office of Management and Budget) have tended to be wary of capital budgeting proposals, because they want to protect the concepts of full-funding and up-front scoring, to maintain budget discipline and ensure that Congress fully evaluates the likely costs and benefits of investments before appropriating funds for them.

A. Proposal for Separate "Investment" Budget Category

In 1993, in response to a request by Chairman John Conyers, House Committee on Government Operations, to evaluate capital budgeting, GAO issued a report titled "Incorporating an Investment Component in the Federal Budget".

In this report, GAO concluded that the most appropriate definition of "investment", for the purpose of focusing on long-term economic growth, would include Federal spending intended to enhance the private sector's long-term productivity, including spending on research and development, education and training, as well as spending for physical capital to improve infrastructure. GAO did not include in this definition spending on federally owned capital that the government itself uses (e.g., federal land, office buildings, or defense weapons systems).

GAO further concluded that establishing investment targets within a framework similar to that contained in the Budget Enforcement Act (i.e., having a separate budget category for investment spending, similar to the non-defense discretionary, and defense discretionary budget categories), was the most promising way to incorporate an investment component into the budget. GAO argued that, under this approach, Congress and the administration would reach agreement on the appropriate level of investment spending, and a separate discretionary spending cap could be established to mandate a separate investment target (or floor) to protect investment spending from being crowded out by other activities. This is similar to the approach that was taken in TEA-21 to establish separate highway and transit budget categories.

B. President's Commission to Study Capital Budgeting

In 1997, President Clinton established by Executive Order a Commission to Study Capital Budgeting. The order directed the commission to report on various aspects of capital budgeting, including the budgeting of capital in other countries, state and local governments, and the private sector; the appropriate definition of capital; the role of depreciation in capital budgeting; and the effect of a capital budget on macroeconomic stability and budgetary discipline.

In 1999, the President's Commission issued its report, which did not propose the adoption of a formal capital budget. Nor did it support GAO's proposal for a separate "investment" budget category. Rather, its recommendations were largely aimed at improving the information available to budget decision-makers, and a reiteration of current scoring rules requiring full, up-front funding for capital projects.

WITNESSES

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